

CLAIMS

1. An optical lens holder comprising a supporting means and a first and a second arm defining a lens holder general plane, first and second arms being relatively movable with regards to each other and each arm having spaced apart first and second end portions and an intermediate portion, the arms being mounted on the supporting means through their first end portions and the second end portions of each arm comprising optical lens accomodating means, said optical lens accomodating means facing each other, whereby an optical lens can be maintained within the accomodating means of the first and second arms with its optical axis orthogonal to the general plane of the lens holder through at least one, preferably 1 to 8, more preferably 1 to 6 and better one or two contact points between the lens periphery and each of the first and second lens accomodating means, wherein at least the second end portion of each arm comprises a material having a dielectric constant at 1 MHz equal to or higher than the dielectric constant of the optical lens material.
2. The optical lens holder of claim 1, wherein the supporting means is not electrically conductive.
3. The optical lens holder of claim 1, wherein the material of the second end portions of the arms have a dielectric constant at 1 MHz of 3.0 or more.
4. The optical lens holder of claim 1, wherein the material of the second end portion of the arms has a specific heat ($\text{kJ kg}^{-1} \text{K}^{-1}$) higher than the specific heat of the optical lens material.
5. The optical lens holder of claim 4, wherein the material of the second end portion of the arms has a specific heat higher than $1.2 \text{ kJ kg}^{-1} \text{K}^{-1}$.
6. The optical lens holder of claim 1, wherein the material of the second end portions of the arms is selected from the group consisting of polyacrylonitrile-butadiene-styrene (ABS), polyoxymethylene homo and copolymers (POMH and POMC) cellulose acetate (CA), cellulose acetate butyrate (CAB), polyamides, polyetherimides (PEI), polymethylmethacrylates (PMMA) and polyaramides.

7. The optical lens holder of claim 1, wherein the second end portion of each arm is either made of or covered with an electroconductive material.

8. The optical lens holder of claim 7, wherein the electroconductive material is a metal.

9. The optical lens holder of claim 8, wherein the metal is selected from aluminum, stainless steel, copper, brass, gold.

10. The optical lens holder of claim 7, wherein the intermediate portion and first end portion of the arms are made of an electrically insulating material.

11. The optical lens holder of claim 1, wherein the second end portion of the arms are thinner than the intermediate and first end portions in a direction orthogonal to the general plane of the lens holder.

12. The optical lens holder of claim 11, wherein the thickness of the second end portion ranges from 2 mm to less than 13 mm, preferably 2 to 10 mm.

13. The optical lens holder of claim 1, wherein each lens accomodating means comprise a recess having a bottom wall and two inclined sidewalls.

14. The optical lens holder of claim 13, wherein the inclined sidewalls form an angle of at least 120° with the bottom wall.

15. The optical lens holder of claim 1, wherein the supporting means comprises a pair of parallel rails, first and second arms being movable by translation on said pair of rails, relatively to each other.

16. The optical lens holder of claim 1, wherein the second end portion of the second arm is provided with an additional lens accomodating means opposite to the lens accomodating means of the second arm facing the lens accomodating means of the first arm, and further comprising a third arm opposite to the first arm and lying in the lens holder general plane, relatively movable with regard to the second arm and having spaced apart first and second end portions and an intermediate portion, the third arm being mounted on the supporting means through its first end portion and the second end portion of the third arm being provided with a lens accomodating means facing the additional lens accomodating means of the second arm, whereby an

additional lens can be maintained within the lens accomodating means of the third arm and the additional accomodating means of the second arm with its optical axis orthogonal to the general plane of the lens holder through at least one, preferably one to eight, more preferably one to six and even better one or two contact points between its periphery and each of the additional lens accomodating means of the second arm of the third arm, wherein at least the second end portion of the third arm comprises a material having a dielectric strength of 1 MHz equal to or higher than the dielectric constant of the optical lens material.

17. The optical lens holder of claim 16, wherein the supporting means is not electrically conductive.

18. The optical lens holder of claim 16, wherein the material of the second end portions of the arms have a dielectric constant at 1 MHz of 3.0 or more.

19. The optical lens holder of claim 16, wherein the material of the second end portions of the arms have a specific heat ($\text{kJ kg}^{-1} \text{K}^{-1}$) higher than the specific heat of the optical lens material.

20. The optical lens holder of claim 16, wherein the material of the second end portions of the arms have a specific heat higher than $1.2 \text{ kJ kg}^{-1} \text{K}^{-1}$.

21. The optical lens holder of claim 16, wherein the material of the second end portions of the arms is selected from the group consisting of polyacrylonitrile-butadiene-styrene (ABS), polyoxymethylene homo and copolymers (POMH and POMC) cellulose acetate (CA), cellulose acetate butyrate (CAB), polyamides, polyetherimides (PEI), polymethylmethacrylates (PMMA) and polyaramides.

22. The optical lens holder of claim 14, wherein the second end portion of each arm is either made of or covered with an electrically conductive material.

23. The optical lens holder of claim 22, wherein the electroconductive material is a metal.

24. The optical lens holder of claim 23, wherein the metal is selected from aluminum, stainless steel, copper, brass, gold.

25. The optical lens holder of claim 22, wherein the intermediate portion and first end portion of the arms are made of an electrically insulating material.
26. The optical lens holder of claim 16, wherein the second end portion of the arms are thinner than the intermediate and first end portions in a direction orthogonal to the general plane of the lens holder.
27. The optical lens holder of claim 26, wherein the thickness of the second end portion ranges from 2 mm to less than 13 mm, preferably 2 to 10 mm.
28. The optical lens holder of claim 16, wherein each lens accomodating means comprise a recess having a bottom wall and two inclined sidewalls.
29. The optical lens holder of claim 28, wherein the inclined sidewalls form an angle of at least 120° with the bottom wall.
30. The optical lens holder of claim 16, wherein the supporting means comprises a pair of parallel rails, the first and third arms being movable by translation on said pair of rails.
31. The optical lens holder of claim 1, wherein the lens accomodating means comprise two identical spaced apart tabs projecting perpendicularly from the first and second arms.
32. The optical lens holder of claim 1, wherein the lens accomodating means comprise two identical spaced apart tabs projecting perpendicularly from one of the arms and a single similar tab projecting perpendicularly from the other arm towards the two spaced apart tabs and situated in between the two spaced apart tabs.
33. The optical lens holder of claim 31 or 32, wherein each tab comprises a lens receiving notch at its free end.
34. The optical lens holder of claim 31 or 32, wherein first and second arms are movable by translation on the supporting means.
35. The optical lens holder of claim 31 or 32, wherein first and second arms are elastically deformable.
36. The optical lens holder of claim 31 or 32, wherein only the tabs are elastically deformable.

37. The optical lens holder of claim 31 or 32, wherein the material of the second end portions of the arms have a dielectric constant at 1 MHz of 3.0 or more.

38. The optical lens holder of claim 31 or 32, wherein the material of the second end portion of the arms has a specific heat (kJ kg⁻¹ K⁻¹) higher than the specific heat of the optical lens material.

39. The optical lens holder of claim 31 or 32, wherein the material of the second end portion of the arms has a specific heat higher than 1.2 kJ kg⁻¹ K⁻¹.

40. The optical lens holder of claim 31 or 32, wherein the material of the second end portions of the arms is selected from the group consisting of polyacrylonitrile-butadiene-styrene (ABS), polyoxymethylene homo and copolymers (POMH and POMC) cellulose acetate (CA), cellulose acetate butyrate (CAB), polyamides, polyetherimides (PEI), polymethylmethacrylates (PMMA) and polyaramides.

41. The optical lens holder of claim 31 or 32, wherein the second end portion of each arm is either made of or covered with an electrically conductive material.

42. The optical lens holder of claim 41, wherein the electroconductive material is a metal.

43. The optical lens holder of claim 42, wherein the metal is selected from aluminum, stainless steel, copper, brass and gold.

44. The optical lens holder of claim 41, wherein the intermediate portion and first end portion of the arms are made of an electrically insulating material.

45. The optical lens holder of claim 31 or 32, wherein the second end portion of the arms are thinner than the intermediate and first end portions in a direction orthogonal to the general plane of the lens holder.

46. The optical lens holder of claim 45, wherein the thickness of the second end portion ranges from 2 mm to less than 13 mm, preferably 2 to 10 mm.

47. The optical lens holder of claim 33, wherein the notch has the shape of a V.

48. The optical lens holder of claim 47, wherein the angle of the V notch is 90° or more.